GB energy limited

ACN 118 758 946

ASX Announcement
18 January 2017

GB Energy Limited
is an exploration company focused on energy metals

Directors
Chairman
Mr Stuart Rechner
Executive Director
Mr Nick Burn
Director
Dr David Detata

Operations
Chief Financial Officer
Ms Anna MacKintosh
Lead Consultant
Mr James Allchurch

Issued Capital
Ordinary Shares
905,955,825
Unlisted Options
75,000,000

Share Price – 16 January 2017
$0.004

ASX Code
GBX

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Quarterly Activities Report
Quarter Ended 31 December 2016

GB Energy (ASX: GBX) ("the Company") is pleased to provide the following summary of activities conducted in the December quarter

Appointment of Exploration Manager and Board Changes

GB Energy appointed Mr Nick Burn BSc (Hons) MBA MAIG as Exploration Manager and Executive Director. Mr Burn has over 25 years' experience in the minerals exploration industry including extensive operational experience throughout Australia. Mr Burn was previously CEO of ASX-listed uranium explorer Regalpoint Resources Ltd and Exploration Manager for Energy Metals Ltd.

GB Energy Executive Chairman Mr Graeme Kirke resigned from the Board effective 10 October 2016 and Mr Stuart Rechner assumed the role of Chairman.

Uranium tenement application lodged in NT

During the quarter, the Company lodged an application for Exploration Licence ELA31448 "Napperby" in the Ngalia Region of the Northern Territory.

This GB Energy application is targeting the potential for extensions to the surficial sediment-hosted Napperby uranium resource and is similar in setting to the neighbouring Cappers uranium resource.

The Napperby Project was first discovered and explored by CRA Exploration and Uranerz in the late 1970s and early 1980s. The project comprises an extensive, surficial, consistently mineralised zone within 3 to 10 metres of the surface in semi-consolidated and unconsolidated sediments over a 14 km length.[1]

This application is in conflict with three other applications and will be subject to the standard processes of the Northern Territory Department of Mines and Energy and grant cannot be guaranteed.

Results of Sediment and Brine sampling at Lake Gregory

As previously discussed at the end of the September 2016 quarter, the Company completed initial field reconnaissance and sediment/brine sampling work at the Lake Gregory project in South Australia. Lake Gregory was targeted following review of a Geoscience Australia prospectivity analysis which identified the potential of Lake Gregory to host lithium brines, potash and uranium mineralisation.

GB Energy completed a sampling programme that included the excavation of nine hand-dug pits across Lake Gregory to a total depth of between 0.8 metres below

ground surface (mbgs) and 1.1mbgs. Highly saline water was recovered from five of the nine pits using a peristaltic pump. Water levels ranged from 0.69mbgs to 1mbgs. Sediment samples from the pits as well as surface sediments and waters were also collected and submitted for analysis.

Assay results for both sediments and water samples have been received, with no anomalous results for targeted elements. Results are presented in Tables 1 and 2.

GB Energy is now conducting a review of the Lake Gregory tenement in the context of these results.

AGM

The Annual General Meeting of shareholders was held on 25 November 2016 in East Perth with all resolutions being passed on a show of hands.

Tenement Schedule (Disclosure per ASX Listing Rule 5.3.3)

Tenements held at end of the quarter by GB Energy and subsidiary companies.

TENEMENT	LOCATION	NAME	INTEREST
EL 5231	South Australia	Stuart Shelf	100%
EL 5255	South Australia	Stuart Shelf	100%
EL 5302	South Australia	Mt Denison	100%
EL 5391	South Australia	Lake Blanche	100%
EL 5778	South Australia	Lake Gregory	100%
ELA31275	Northern Territory	Indiana	Application
ELA31391	Northern Territory	Indiana	Application
ELA31392	Northern Territory	Ngalia	Application
ELA31393	Northern Territory	Ngalia	Application
ELA31448	Northern Territory	Napperby	Application
E45_4572	Western Australia	Kintyre North	Application
E80_5012	Western Australia	Mt Angelo	Application
E80_5013	Western Australia	Armanda River	Application

References

1. **ASX: Toro Energy 3 March 2009 www.asx.com.au/asxpdf/20090303/pdf/31gd7y7hylrn51.pdf**

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information reviewed by Mr Nick Burn who is an employee of the Company and is a director of the Company. Mr Burn is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation, the types of deposits under consideration and the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results. Mr Burn consents to the inclusion of the information in the form and context in which it appears.

***Table 1** – Location and Assay results for Sediment sampling at Lake Gregory*

Sample_ID	Easting	Northing	K (ppm)	Li (ppm)	U (ppm)	Lab method
LG1-SS1	303266	6796779	12,800	10	1.2	MA101 & MA102 (U)
LG1-SS2	303266	6796779	12,800	10	1.9	MA101 & MA102 (U)
LG2-SS1	305583	6796707	8,500	20	1.5	MA101 & MA102 (U)
LG2-SS2	305583	6796707	9,700	20	2.4	MA101 & MA102 (U)
LG3-SS1	306969	6794061	12,500	10	2.1	MA101 & MA102 (U)
LG3-SS2	306969	6794061	11,200	10	2.9	MA101 & MA102 (U)
LG4-SS1	307014	6794167	10,800	10	2.4	MA101 & MA102 (U)
LG5-SS1	305308	6791315	10,300	10	2.4	MA101 & MA102 (U)
LG5-SS2	305308	6791315	11,200	10	2.2	MA101 & MA102 (U)
LG6-SS1	296872	6796937	13,900	20	1.8	MA101 & MA102 (U)
LG6-SS2	296872	6796937	12,800	20	1.8	MA101 & MA102 (U)
LG7-SS1	297972	6799563	12,600	30	1.9	MA101 & MA102 (U)
LG7-SS2	297972	6799563	5,400	40	1.9	MA101 & MA102 (U)
LG7-SS3	297972	6799563	8,400	30	2.1	MA101 & MA102 (U)
LG8-SS1	302645	6805686	8,200	10	2	MA101 & MA102 (U)
LG8-SS2	302645	6805686	8,300	10	1.9	MA101 & MA102 (U)
LG9-SS1	311014	6806047	5,000	<10	0.8	MA101 & MA102 (U)
LG9-SS2	311014	6806047	4,300	<10	0.9	MA101 & MA102 (U)

Notes:
Locations are in GDA94 Zone 52

***Table 2** – Location and Assay results for Brine sampling at Lake Gregory*

Sample_ID	Easting	Northing	K (mg/L)	Li (mg/L)	U (ug/L)	Lab method
LG1-GW1	303266	6796779	210	<1	<0.2	SO101 & SO102 (U)
LG2-GW	305583	6796707	170	<1	<0.2	SO101 & SO102 (U)
LG6-GW	296872	6796937	110	<1	<0.2	SO101 & SO102 (U)
LG7-GW	297972	6799563	130	<1	<0.2	SO101 & SO102 (U)
LG9-GW	311014	6806047	95	<1	<0.2	SO101 & SO102 (U)
LG10-SW	311018	6805799	60	<1	<0.2	SO101 & SO102 (U)

Notes:
Locations are in GDA94 Zone 52

Appendix 1: JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Both sediment (SS prefix) and sub surface water samples (GW prefix) were collected by digging a shallow hole with a hand shovel and then drilling a vertical hole with a hand auger. • Representative sediment samples were collected from the shovel or hand auger at typically 500 millimetre intervals, including end of hole. • Sub surface water that filled holes was then sampled. A total of five, 500 millilitre sub surface water samples were collected. • Surface water samples (SW prefix) were collected directly from the lake surface water bodies. A total of three, 500 millilitre surface water samples were collected. • Purpose of shovel and auger excavation was to provide a sufficient volume (~1-5 litre) of water to fill the hole prior to collecting in 500 millilitre containers. • Water sampling was conducted primarily to determine the aqueous chemistry of the waters.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Hand auger drilling (100mm diameter) was completed to a maximum depth of 1.1 metre.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Excavated shovel/auger holes were dug/drilled to between 0.7-1.1m depth. • Representative sediment samples were collected from the shovel or hand auger at typically 500 millimetre intervals, including end of hole. Due to hand-dug nature of the holes recoveries were 100%. • Holes were allowed to fill with groundwater prior to sampling with a peristaltic pump. The depth of the hole and depth of water table was recorded as metres below ground surface (mbgs). • The relationship between the total volume of water recovered and the water chemistry is not yet known
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• The excavated sediment from the shovel/auger drill holes was geologically logged. Given the reconnaissance nature of this work, the logging data would not be part of a sediment or brine Mineral Resource estimation. • Geological logging was qualitative in nature recording the colour and lithology of the sediment removed from holes. A qualitative observation

Criteria	JORC Code explanation	Commentary
		of the rate of water ingress into each excavated hole was recorded along with the hole depth and the standing water table (mbgs). • All shovel/auger drill hole samples were logged
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No sub-sampling of sediments or water was conducted due to the nature of sample collection. Sediment samples were both wet and dry depending on their sampling location with respect to the standing water table. • Sample preparation is considered to be consistent with industry best practice. • No field QC samples (standards, blanks, duplicates, replicates) were included with samples submitted to the laboratory. The sampling program is reconnaissance by nature and field QC samples were not considered critical for the program. Water sample volumes were collected as nominal 500 millilitres. This represents a large volume of the actual volume required for chemical analysis (e.g. 0.5ml for ICP analysis). Likewise sediment samples were 500g at a minimum.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The assaying and laboratory procedures are considered to be appropriate for reporting both sediment and brine chemistry, according to industry best practice. • No assay results were obtained outside of the laboratory. • Internal laboratory standards and blanks were included with the batches of samples analysed. Repeat analysis was performed at the rate of 1 per every 10 samples. Internal laboratory standards showed very good levels of accuracy and precision.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No verification of analytical results has been undertaken • No twined sample locations were completed – density of sample spacing is at a regional / reconnaissance scale • All data were initially recorded into field notebook. These data were manually entered into Excel spread sheets and validated by the supervising geologist. Data checks of transcription and typographic errors were undertaken. Sample locations were visually validated by plotting with GIS software. • No adjustments to the primary data have been made.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All X/Y surveying was completed using a Garmin 62s handheld GPS. The locations are considered to have an Estimated Precision of Error (EPE) of ±3 metres • Co-ordinates were recorded in GDA94 UTM Easting and Northing Zone 51S. • Elevations from the handheld GPS are not considered of sufficient accuracy to warrant recording.
Data spacing	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree*	• Sample spacing density of the sediment and water samples is considered to be of a regional/reconnaissance scale. Sample spacing is

Criteria	JORC Code explanation	Commentary
and distribution	*of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	not considered sufficient to calculate a sediment or brine Mineral Resource. Hydrological data, such as aquifer geometry, recharge rates and specific bore yield, need to be collected before a Mineral Resource may be estimated. • The 500ml litre water samples are considered a composite sample of the total volume of water within the excavated holes.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The sediment and water samples should only be considered representative of the near surface/surface sediment and aquifer(s). Samples may represent entirely separate and/or semi connected near surface aquifer systems given the sample spacing. • The sediment and brine samples are considered representative of the in situ sediment and ground water chemistry of the sample location at the time of sampling – this may change over time e.g. on a seasonal basis, or with pumping.
Sample security	• *The measures taken to ensure sample security.*	• Samples were securely stored from the time of collection through to delivery to the laboratory. Plastic sample container lids (water) were securely fastened at the time of sampling and checked again prior to transporting the samples to Adelaide. Sediment samples were collected in calico bags. The samples were accompanied by the supervising field geologist whilst in transit and hand delivered to the laboratory
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits of the sampling techniques and data were carried out due to the early stage of exploration.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The project is 100% owned by GB Energy Exploration Pty Ltd, a 100%-owned subsidiary of GB Energy Limited, under Exploration Licence EL5778. • The area is subject to native title determination from the Dieri People.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Company is not aware of any previous exploration at Lake Gregory.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Salt lake deposition setting.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of*
		• Refer to results table.
		• The hand-dug reconnaissance vertical sampling holes were dug to a maximum depth of 1.1mbgs and were situated where access to the lake sediments and potential brine was possible.

	the drill hole collar ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not applicable – no aggregation applied to results.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Not applicable.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• No significant discovery reported.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Results considered relevant have been reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• No other exploration has been carried out within the Project area.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• No further work planned.